Example 1

(1) It is assumed that:

A door administering system has administered doors as follows:

User **X** is allowed to open Door **A** and Door **B**

User **Y** is allowed to open Door **A** and Door **C**

User **Z** is allowed to open Door **B**

A key administering system has administered keys as follows:

Key **M** is assigned to User **X**

Key **N** is assigned to User **Y**

Key **O** is assigned to User **Z**

(2) Doors **A**, **B** and **C** are operated properly on the above administrations as follows:

Door **A** will open when presented with Key **M** or Key **N**

Door **B** will open when presented with Key **M** or Key **O**

Door **C** will open when presented with Key **N**

(3) It is assumed that User **X** changes his key from Key **M** to Key **P** through the key administering system.

The key administering system affects the keys that will open Doors **A**, **B** and **C** simultaneously without affecting the administration of the door administering system. The system operates properly as follows:

Door **A** will open when presented with Key **P** or Key **N**

Door **B** will open when presented with Key **P** or Key **O**

Door **C** will open when presented with Key **N**

Example 2

(1) It is assumed that:

Door Owner **A** has a door administering system for Door **A** and Door **D**

Door Owner **B** has a door administering system for Door **B**

Door Owner **C** has a door administering system for Door **C** and Door **E**

Where:

Door **A** and Door **D** are in one establishment

Door **B** is in a separate establishment

Door **C** is in another separate establishment

Door **E** is in yet another separate establishment

And the establishments are owned and controlled by separate parties.

(2) It is assumed that:

User **X** has access to a key administering system in which he has declared Key **M** as his key

User **Y** has access to a key administering system in which he has declared Key **N** as his key

User **Z** has access to a key administering system in which he has declared Key **O** as his key

(3) Now it is assumed that, with each door owner using his respective door administering system:

Door Owner **A** allows:

User **X** to open Door **A**

User **Y** to open Door **A** and Door **D**

Door Owner **B** allows:

User **X** to open Door **B**

User **Z** to open Door **B**

Door Owner **C** allows:

User **X** to open Door **C**

User **X** to open Door **E**

User **Y** to open Door **E**

User **Z** to open Door **E**

(4) Doors **A**, **B**, **C**, **D**, and **E** are operated properly on these permissions and declarations as follows:

Door **A** will open when presented with Key **M** or Key **N**

Door **B** will open when presented with Key **M** or Key **O**

Door **C** will open when presented with Key **M**

Door **D** will open when presented with Key **N**

Door **E** will open when presented with Key **M** or Key **N** or Key **O**

(5) It is assumed that User **X** uses his key administering system to change his key from Key **M** to Key **P**.

Then, the key administering system used by User **X** affects the keys that will open Doors **A**, **B**, **C, D** and **E** simultaneously without the participation of Door Owners **A** or **B** or **C**. The system operates properly as follows:

Door **A** will open when presented with Key **P** or Key **N**

Door **B** will open when presented with Key **P** or Key **O**

Door **C** will open when presented with Key **P**

Door **D** will open when presented with Key **N**

Door **E** will open when presented with Key **P** or Key **N** or Key **O**